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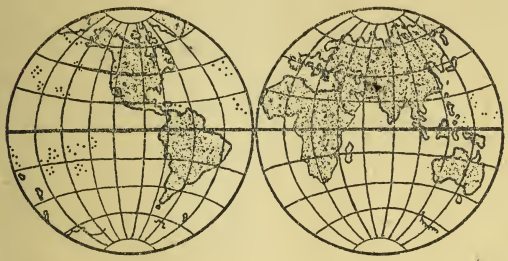

GEOGRAPHICAL INSTRUCTION, A BRIEF BIBLIOGRAPHY OF THE SUBJECT.

Prepared by WILL S. MONROE,

Of the State Normal School Westfield, Mass.

(*a*) Books.

1. Augsburg D. R. Easy drawings for the geography class. New York: E. L. Kellogg & Co., 1894. pp. 90.
NOTE: Simple but useful suggestions for free-hand sketching in connection with elementary geographic instruction.

2. Davis William M. Geographic illustrations, based on the physical features of Southern New England. Cambridge: Published by Harvard University, 1895. pp. 46. . . . 550.37.
NOTE: Especially valuable for suggestions in teaching the relations of geographic forms.

3. Davis William M., King C. F., and Collie G. L. The use of governmental maps in school. New York: Henry Holt & Co., 1894. pp. 64. . . . . 550.38
NOTE: A select list of topographical maps published by the various governmental bureaus of the United States with special reference to their utility in illustrating the physical features of our country.

4. Elderton W. A. Maps and map-drawing. New York: Macmillan Co., 1890. pp. 129. . . . . 444.76
NOTE: Briefly reviews the history of map-making and discusses technique of map-making processes.

5. Fisher, Gilman C. Essentials of geography. Boston: New England Pub. Co., 1885. pp. 74. . . . . 454.50
NOTE: Plan of a course of study for elementary schools.

6. Frye, Alex E. How to teach primary geography. Boston: Ginn & Co., 1896. pp. 60. . . . . 444.73
NOTE: A manual prepared to accompany Frye's Primary geography. Valuable as indicating the first steps to be taken in the study of home geography.

7. Frye, Alex E. Teacher's manual of geography. Boston: Ginn & Co., 1896. pp. 190. . . . . 444.75
NOTE: Suggestions for the use of the maps, pictures, and text in Frye's complete geography.

8. Frye, Alex E. Child and nature; or geography teaching with sand modeling. Boston: Ginn & Co., 1888. pp. 216. 453.15
NOTE: Perhaps the most important pedagogic treatment of geography teaching in elementary schools. It aims (1) to grade and apportion the subject matter of natural geography to the successive stages of development of the child's mind, (2) to direct attention to the laws of mind-growth which condition methods of teaching, and (3) to indicate lines of study for teachers.

8. Geikie, Archibald. The teaching of geography. New York: Macmillan Co., 1887. pp. 202. . . . . 454.39
NOTE: A discussion of the principles, methods, and aids of geography for the use of elementary teachers.

9. Guyot, Arnold. Earth and man. New York: Chas. Scribners' Sons, 1890. pp. 334. . . . . 552.31
NOTE: Mr. Frye says of this book: "Though published (originally) as far back as 1849, this is one of the most inspiring works

that can be found to-day. It lacks, of course, the method that comes of recent study of physiographic processes, but it is very strong on the relation of the earth's slopes to human progress."

10. Huxley, Thomas H. Physiography. New York, Macmillan Co., 1878. pp. 384. . . . . 552.38
NOTE: The Thames and its basin are taken to illustrate physiographic processes by methods of observation and experiment.

11. Keltie, J. Scott. Applied geography. London: Geo. Philip & Son, 1890. pp. 169; 1768.17
NOTE; Shows the bearings of geographic knowledge on human interests.

12. Keltie, J. Scott, et al. Report of the proceedings of the Royal geographical society in reference to the improvement of geographical education. London: John Murray, 1886, pp. 343.
NOTE: A most valuable document, containing Keltie's report on the teaching of geography in the United States, Canada and the countries of Europe; a discussion of the aims and methods of geographical education by E. G. Ravenstein; an account of appliances used in geographical instruction by Keltie; the relation of geography to history by James Bryce, and some of the scientific aspects of geography by H. N. Mosley.

13. King, Charles F. Methods and aids in geography. Boston: Lee & Shepard, 1889. pp. 518. . . . . 454.52
NOTE: Suggestions for the preparation of lessons, construction of useful geographic devices, and exhaustive lists of supplementary readers.

14. Maltby, A. E. Map modeling in geography and history. New York: E. L. Kellogg & Co., 1895. pp. 229. . 444.74
NOTE: Valuable for the directions on the making of relief maps; also many helpful hints on lessons.

15. McMurry, Charles A. Special method in geography. Bloomington (Ill.): Public school publishing co., 1894. pp. 100.
NOTE: Illustrates the use of typical forms with special reference to the Mississippi valley.

16. Mill, Hugh R. Hints to teachers and students on the choice of geographical books for reference. New York: Longmans Green & Co., 1897., pp. 142. . . . . 454.40
NOTE: A valuable list of select geographic references.

17. Murdock, Frank F. Outline of elementary geography. Bridgewater, (Mass.): State normal school, 1895. pp. 159.
NOTE: Especially suggestive in co-ordinating the work in elementary science with the study of geography.

18. Nicholos, W. F. Topics in geography. Boston: D. C. Heath & Co., 1890. pp. 202. . . . . 444.20
NOTE: Consists of geographic text with suggestions to teachers.

19. Parker, Francis W. How to study geography. New York: D. Appleton & Co., 1889. pp. 400. . . 443.10
NOTE: Helpful suggestions on the teaching of slopes and drainage after the plan of Guyot.

20. Powell, T. W., et al. Physiography of the United States. New York: American Book Co., 1896. pp. 345. . 550.32
NOTE: Originally published as the national geographic monographs in ten numbers. Mr. Frye says of this work: "It is greatly to be regretted that these monographs were not all written, as one or two were, in simple language. The purpose of the National Geographic Society was to suggest to teachers methods of studying and teaching typical geographical regions. Had the authors avoided, as far as possible, difficult technical expressions, and sought to appeal to the average teacher, rather than to geologists, these monographs would have formed one of the most valuable works in the English language on the teaching of geography. Even as written they are of immense value, and should be carefully studied by every teacher of physical geography."

21. Ratzel, Friederich. History of mankind. New York: Macmillan Co., 1896. Vol. I, pp. 496. Vol. II, pp. 562. Vol. III, pp. 612. . . . . 750.101
NOTE: This is a reference work on the study of people and one of the very best of its kind and the discussion of the principle of ethnography in the first volume gives it such great pedagogic value as to make it an indispensable reference book to all teachers of geography.

22. Redway, J. W. Manual of geography. Boston: D. C. Heath & Co., 1889. pp. 175. . . . . 444.44
NOTE: The first part contains hints on the teaching of geography and the second part discusses some popular fallacies.

23. Redway, J. W. The reproduction of geographical forms. Boston: D. C. Heath & Co., 1893. pp. 84. . . 444.72
NOTE: Hints on outdoor lessons and on the use of pictures.

24. Ritter, Karl. Comparative geography. New York: American Book Co., 1895. pp. 220. . . . . 550.39
NOTE: A really great geographic classic, besides being a masterly presentation of the comparative method of study.

25. Ritter, Karl. Geographical studies. New York: American Book Co., 1895. pp. 356. . . . . 552.14
NOTE: A translation of Ritter's well known Erdkunde with a sketch of the great German geographer by W. L. Gage.

26. Trotter, Spencer. Lessons in the new geography. Boston: D. C. Heath & Co., 1895. pp. 182. . . . . 444.21
NOTE: Emphasizes the human side of the study of geography.

(*b*) ARTICLES AND REPORTS.

1. Chamberlain, T. C., et al. Geography in the report of the Committee of Ten on Secondary schools. Washington: Government printing office, 1893. pp. 204-249. . 451.34

2. Davis, William M. Harvard geographical models. Proceedings of the Boston society of natural history Vol. XXVIII, No. 4, pp. 85-110 with four plates.

3. Davis, William M. Need of geography in the university. *Educational review*. Vol. X, pp. 22-41.

4. Davis, William M. Teaching of geography. *Educational review*. Vol. III, pp. 417-426 and Vol. IV, pp. 6-15.

5. Klemm, L. R. Recent developments of geography in Central Europe. Report of the Commissioner of education for 1892-93. Vol I, pp. 279-321.

6. Monroe, Will S. Geographic instruction in Germany. *Journal of school geography* Vol. I, pp. 10-14.

7. Orr, William, Jr. The Connecticut valley. *Journal of school geography*. Vol. I, pp. 72-78

8. Potter, J. R. History of methods of instruction in geography. *Pedagogical seminary*. Vol. I, pp. 415-424.

9. Redway, J. W. Status of geography teaching. *Educational review*. Vol. VII, pp. 33-41.

10. Ward, Effie May. Geographic interests of children. *Education*. Vol. XVIII, pp. 235-240.

(*c*) Journals.

1.. *The Journal of school geography*. Edited by Richard E. Dodge, Teachers' college, New York city. 10 numbers a year. Note: A well edited teacher's journal. The price reasonable and the articles for the most part have permanent pedagogic value.

2. *The National geographic magazine*. Published by the National geographic society, Washington. 12 numbers a year.

3. *Bulletin of the American geographical society*, New York. 5 numbers a year.

Note: Additional references to the teaching of geography will be found in the Bibliography of education by Will S. Monroe (D. Appleton & Co., New York, 1897) pp. 46-51, and in an article on "Better books in school geography" by Mary I. Platt in *Journal of school geography*. Vol. II, pp. 181-191.

The Teaching of Geography.

By ARCHIBALD GEIKIE.

TAKEN FROM HIS BOOK WITH THE ABOVE TITLE.

. . . "The aspects of the globe, as they present themselves to ordinary human intelligence, and the everchanging phenomena that surround us and influence our daily life, are the peculiar domain of Geography.

Except the history and experience of man himself, there is no subject of inquiry that yields so profound and perennial a human interest as the story of the globe on which we dwell. We are surrounded with phenomena that ceaselessly press themselves upon our notice. Our existence and enjoyment rest upon the continuance of the favourable conditions in which we live. As even a slight variation in these conditions may powerfully affect us for good or evil, they are a subject of momentous importance to us. We know that they differ greatly in different quarters of the globe, and we can hardly avoid some curiosity to learn on what circumstances such varying environment depends. It is the special function of Geography to direct our attention to these matters, to increase

our knowledge of the country we live in, and thence to trace analogies and contrasts among the aspects of Nature in other regions of the globe. Geography compares the topography of one continent with that of another, dwelling upon the fundamental elements of each, and showing how they have affected the distribution and development of the human population. Mountains and valleys, hills and plains, rivers and lakes appear in region after region with ever the same essential features, but with endless diversity of local detail. Connecting this local detail with human history, Geography notes how largely it has influenced the progress of political events, how, for example, it has directed the migration of peoples, guided or arrested the tide of conquest, moulded national character or given its own colouring to national mythology and literature. Geography further contrasts the climates of the globe, calls attention to the varying phases of plant and animal life by which they are accompanied, and traces their influence upon the march of discovery and the spread of civilization and commerce.

In gathering the materials for this comprehensive picture of the earth as the dwelling-place of man, Geography culls freely from almost every branch of natural science. The facts and inferences which are in this way gathered from all corners of the globe demand for their adequate comprehension something more than mere book learning. The geographer should himself be an observer of Nature. He may know only a very limited space in the wide domains of scientific acquirement; but his knowledge of that space should be thorough enough to enable him duly to appreciate habits of observation, methods of research, and processes of reasoning in other departments of inquiry. His sympathies should be wide and deep, embracing all parts of Nature, even those with which he has been able to make no personal acquaintance. This breadth of vision keeps him in touch with the progress of discovery. He is ever ready to detect the geographical significance of new observations, and to appropriate to his own subject the results obtained in the most widely-separated fields of scientific research.

What is true of the professed geographer holds also, in large measure, for those who teach geography. The teacher who would gain the greatest amount of personal enjoyment from the cultivation of this subject, and who would most successfully use it as a discipline in the education of others, should as far as he can, make himself acquainted with the practical pursuit of at least one department of natural knowledge. The man who has once dissected a plant and practically studied the mutual relations and functions of its several parts, or who has himself traced the connection between the topography of a district and the nature of its underlying rocks, has acquired an experience which gives to his teaching of these subjects a precision and vividness that could never be gained from books. And in proportion as he cultivates the spirit and habit of personal observation and inquiry will his labours among the young be fruitful to them and satisfactory to himself. I do not, of course, mean to imply that good geographical instruction is impossible without scientific acquirement on the part of the instructor. But I would insist that as geography, though it may not claim to be itself a distinct science, is based upon the work of many sciences, its full value as an instrument of education cannot be obtained except by those who are imbued with the scientific spirit.

But Geography rests not only upon the facts and deductions of natural science. Its obligations are hardly less extensive to the department of history. In many systems of education, indeed, it ranks merely as a branch of history. It is not content with tracing the present distribution of the races and nations of mankind. It seeks to picture older groupings out of which those of to-day have been developed, and to follow backward the successive stages of progress to the times of earliest history or tradition. All that may be gathered from written chronicle, or that may have been preserved in the names of places, or that may be inferred from the language and lineaments of a people, comes within the scope of the geographer's inquiry. And it is by availing himself of these manifold sources of information that he completes the political side of the picture which he draws of the geography of a country."